ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
ER REGULATORY CONTACT RECORD

Date/Time:	September 22, 2005		
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Purpose of Contact: Documentation of CRA Ecological Risk Characterization Format

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Discussion

During the preparation of the pre-draft Comprehensive Risk Assessment (CRA) volumes, several meetings and conference calls were held to discuss the format for presenting ecological risk characterization results for the Exposure Units (EUs) at RFETS. The purpose of this contact record is to document the format for presenting the hazard quotient (HQ) assessments that was agreed upon by the CRA Team and the regulatory agencies during a conference call on September 14, 2005.

HQs will be presented for each ecological contaminant of potential concern (ECOPC)/receptor pair that is carried forward to risk characterization. HQs will first be calculated based on default exposure parameters, default bioaccumulation factors (BAFs), default no observed adverse effects levels (NOAELs), threshold effects levels (if available), and default lowest observed adverse effects levels (LOAELs) (if available) that are identified in the CRA Methodology (DOE 2004).

For large home range receptors, the upper confidence limits on the means (UCLs) as determined using ProUCL software (Singh, et al. 2004) will be used as the exposure point concentrations (EPCs) for the HQ calculations. For small home range receptors, the 95 percent upper confidence limits on the 90th percentiles (UTLs) as determined using S+ software (Insightful 2002) will be used as the EPCs for the HQ calculations. For the Preble's meadow jumping mouse (PMJM), the UCLs calculated for the habitat patches will be used as the EPCs for the HQ calculations. In cases where the calculated UCL or UTL exceeds the maximum detected concentration (MDC), the MDC will be used as the EPC. Both Tier 1 and Tier 2 EPCs, as defined in the CRA Methodology, will be used for the default HQ calculations.

For ECOPC/receptor pairs with HQs less than or equal to one based on default parameters and LOAEL values, a qualitative uncertainty discussion will be provided and no additional HQ calculations will be performed. For ECOPC/receptor pairs with HQs greater than one based on default parameter and LOAEL values, an additional HQ assessment will be conducted using

alternate exposure scenarios, BAFs, and toxicity reference values, as appropriate, to provide a quantitative evaluation of the uncertainties associated with the default parameters.

References:
DOE 2004. Final Comprehensive Risk Assessment Work Plan and Methodology, Rocky Flats Environmental Technology Site. Golden, Colorado. September.

Insightful Corporation, 2002. S-Plus 6 for Windows. Seattle, Washington.

Singh, A, A.K. Singh, and R.W. Maichle, 2004. ProUCL Version 3.0. Users Guide. Las Vegas, Nevada. April.

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